to execute instructions and manipulate data to perform some or all of the described functions of network node **115**, memory **230** stores the instructions executed by processor **220**. In some embodiments, processor **220** includes, for example, one or more computers, one or more central processing units (CPUs), one or more microprocessors, one or more applications, and/or other logic.

[0041] Memory **230** is generally operable to store instructions, such as a computer program, software, an application including one or more of logic, rules, algorithms, code, tables, etc. and/or other instructions capable of being executed by a processor. Examples of memory **530** include computer memory (for example, Random Access Memory (RAM) or Read Only Memory (ROM)), mass storage media (for example, a hard disk), removable storage media (for example, a Compact Disk (CD) or a Digital Video Disk (DVD)), and/or or any other volatile or non-volatile, non-transitory computer-readable and/or computer-executable memory devices that store information.

[0042] In some embodiments, network interface **240** is communicatively coupled to processor **220** and refers to any suitable device operable to receive input for network node **115**, send output from network node **115**, perform suitable processing of the input or output or both, communicate to other devices, or any combination of the preceding. Network interface **240** includes appropriate hardware (e.g., port, modem, network interface card, etc.) and software, including protocol conversion and data processing capabilities, to communicate through a network.

[0043] Other embodiments of network node **115** may include additional components (beyond those shown in FIG. **2**) responsible for providing certain aspects of the network node's functionality, including any of the functionality described above and/or any additional functionality (including any functionality necessary to support the solution described above). The various different types of radio access nodes may include components having the same physical hardware but configured (e.g., via programming) to support different radio access technologies, or may represent partly or entirely different physical components.

[0044] In a normal mode of operation, each radio units **260** in radio unit array **210** is responsible for transmitting and receiving wireless signals within a distinct cell site/sector. FIG. **3** illustrates a switch diagram of a radio unit array **300** configured for operation in a normal mode. As depicted, radio unit array **300** includes three radio units that service three distinct cell sectors. Specifically, alpha radio unit **305** services alpha sector **310**, beta radio unit **315** services beta sector **320**, and gamma radio unit **325** services gamma sector **330**. As depicted, all radio units are operational and configured to transmit and receive wireless signals within their associated sector. Thus, each of alpha radio unit **305**, beta radio unit **315**, and gamma radio unit **325** have the switch position set to the first position **335**. Accordingly, alpha radio unit **305** provides power for the transmission of signals via alpha antenna unit **340**, beta radio unit **315** provides power for transmission of signals via beta antenna unit **345**, and gamma radio unit **325** provides power for transmission of signals via gamma antenna unit **350**.

[0045] In certain embodiments, however, it may be desirable to operate radio unit array **210** in a resource sharing mode. FIG. **4** illustrates a switch diagram for an example radio unit array **400** configured for operation in a resource sharing mode. Similar to radio unit array **300** depicted in FIG. **3**, radio unit array **400** includes three radio units associated with three distinct cell sectors. Specifically, alpha radio unit **405** is associated with alpha sector **410**, beta radio unit **415** is associated with beta sector **420**, and gamma radio unit **425** is associated with gamma sector **430**. Were all radio units active, radio unit array **400** would function like radio unit array **300** of FIG. **3**. However, in the depicted embodiment, beta radio unit **415** is not active, and each radio unit **405**, **415**, and **425** has the switch position set to the third position **435**.

[0046] Transition of the switch from the first position associated with the normal mode of operation (depicted in FIG. **3**) to the third position **435** associated with a resource sharing mode may be achieved either mechanically, electro mechanically, and/or electronically and may result in switching of link points between the radio units and the antennas. For example, in the depicted embodiment, alpha radio unit **405** remains linked to antenna alpha unit **440** to support the transmission of signals via alpha antenna unit **440**. Likewise, gamma radio unit **425** remains linked to gamma antenna unit **450** to support the transmission of signals via gamma antenna unit **450**. However, because beta radio unit **415** is inactive, link points between alpha radio unit **405** and beta antenna unit **445** are enabled. As a result, alpha radio unit **405** is capable of supporting transmissions to wireless devices **110** in beta sector **420** via beta antenna unit **445**.

[0047] One scenario in which a radio unit may become inactive is the case of device failure. Such failure may be for a known or unknown reason and may result in wireless coverage being lost in the respective sector. To restore coverage to the sector, previous systems would require the faulty radio unit to be replaced. However, according to certain embodiments, network node **115** may be configured to automatically transition radio unit array **210** to a resource sharing mode when the failure of a radio unit **260** is detected. In such a situation, the antenna unit associated with the failing radio unit **260** may be tapped to a radio unit **260** that is still operational. Thus, wireless service may be maintained within a cell site/sector even when a radio unit **260** fails.

[0048] FIG. **5** is a flow chart illustrating an example embodiment of a method for providing resource sharing to address radio unit failure. The method begins at step **505**, when it is determined that a first radio unit, such as beta radio unit **415**, that is associated with a first radio sector, such as beta radio sector **420**, has failed or is otherwise not active. For example, processor **220** or another component of network node **115** may determine that beta radio unit **415** is not transmitting or receiving wireless signals within beta sector **420**. As a result, wireless coverage in beta sector **420** is lost.

[0049] At step **510**, a determination is made that at least a second radio unit, such as alpha radio unit **405**, associated with a second sector, such as alpha radio sector **410**, is configured for at least one of MIMO and cyclic delay diversity. A determination may then be made as to whether at least one condition is met that indicates the feasibility of the second radio unit for providing service to both the first sector and the second sector at step **515**. Thus, in a particular embodiment, processor **220** or another component of network node **115** may operate to determine that alpha radio unit **405** is capable of providing service to both alpha sector **410** and beta sector **420**. In a particular embodiment, the one or more conditions that may be met may include alpha radio unit **405** being low loaded with specific user-defined Quality of Service Class Identifier (QCI) sessions being less than a predefined threshold. Additionally or alternatively, the one or more conditions